INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2005/000026

A. CLASSIFICATION OF	SUBJECT MATTER			
IPC7: H01H 71/02		and the		
According to International Pate	ant Classification (IPC) or to both nation	onal classification and IPC		
B. FIELDS SEARCHED	hed (classification system followed by c	classification symbols)		
IPC7: H01H			·	
	than minimum documentation to the e	extent that such documents are included in	n the fields searched	
SE,DK,FI,NO classe				
Electronic data base consulted	during the international search (name o	of data base and, where practicable, scarc	h terms used)	
			ľ	
EPO-INTERNAL, WPI				
	IDERED TO BE RELEVANT			
Category* Citation of doc	ument, with indication, where appr	opriate, of the relevant passages	Relevant to claim No.	
16 Jur	FR 2787238 A1 (SCHNEIDER ELECTRIC INDUSTRIES SA), 16 June 2000 (16.06.2000), abstract, see the figures			
	wa em			
(29.03	US 5298874 A (ROBERT MOREL ET AL), 29 March 1994 (29.03.1994), column 4, line 64 - line 68, see the figures			
		•		
	•	•		
			·	
		•		
	•			
Further documents are listed in the continuation of Box C. See patent family annex.				
Special categories of cited documents T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention				
to be of particular relevance "E" earlier application or patent but published on or after the international filter date application or patent but published on or after the international cannot be considered to involve an inventive considered novel or cannot be considered to involve an inventive				
"L" document which may throw doubts on priority claim(s) or which is step when the document is taken alone given to establish the publication date of another ditation or other given to establish the publication date of another ditation or other given the document is taken alone.			e claimed invention cannot be	
"O" document referring to an oral disclosure, use, exhibition or other combined with one or more other such documents, such combinate being obvious to a person skilled in the art			ch documents, such combination	
"P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family			nt family	
Date of the actual completion of the international search Date of mailing of the international search report			search report	
2 May 2005		·	1 -05- 2005	
Name and mailing address of the ISA/ Authorized officer				
Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Magnus Westöö/MN Magnus Westöö/MN				
Facsimile No. + 46 8 666 02 86 Telephone No. + 46 8 782 25 00				

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT Information on patent family members

01/04/2005

International application No. PCT/FI 2005/000026

FR	2787238	A1	16/06/2000	CN ES IT IT	1257297 A 2164572 A 1309382 B VR990100 A	21/06/2000 16/02/2002 22/01/2002 04/06/2001
US	5298874	A	29/03/1994	ATU AUR CON CIN CIN CIN CIN CIN CIN CIN CIN CIN CI	148960 T 660489 B 2639692 A 9203996 A 2080064 A,C 1041361 B,C 1071784 A 69217441 D,T 0538149 A,B 0538149 T3 2099235 T 2682530 A,B 3392441 B 5217489 A 9205924 A	15/02/1997 29/06/1995 22/04/1993 27/04/1993 16/04/1993 23/12/1998 05/05/1993 10/07/1997 21/04/1993 16/05/1997 16/04/1993 31/03/2003 27/08/1993 01/04/1993 21/04/1993

	Declaration: Entitlement to apply for and be granted a patent Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bs.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:	in relation to this international application	
	Name (LAST, First)	ABB OY is entitled to apply for and be granted a patent by virtue of the following:	
VIII-2-1(i i)		ABB OY is entitled as employer of the inventor, MATTLAR, Harri	
VIII-2-1(i i)		ABB OY is entitled as employer of the inventor, KOLMONEN, Rainer	
VIII-2-1(i i)		ABB OY is entitled as employer of the inventor, SALO, Juho	
VIII-2-1(i i)		ABB OY is entitled as employer of the inventor, PIKKALA, Osmo	
VIII-2-1(i i)		ABB OY is entitled as employer of the inventor, SUUTARINEN, Aki	
VIII-2-1(I i)		ABB OY is entitled as employer of the inventor, ALANEN, Jarkko	
VIII-2-1(i i)	·	ABB OY is entitled as employer of the inventor, TUONONEN, Martti	
	This declaration is made for the purposes of:	all designations except the designation of the United States of America	

	Declaration: Entitlement to claim priority Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier applicant's name has changed since the filing of the earlier application (Rules 4.17(iii)) and 51bis.1(a)(iii))	in relation to the international application No. PCT/FI2005/000026
	Name	ABB OY
ļ		is entitled to claim priority of earlier application No. 20040071 by virtue of the following:
VIII-3-1(vii)		transfer of entitlement from ABB OY to ABB OY by way of merger agreement between ABB OY and ABB Holding Oy, dated 31 December 2004 (31.12.2004)
VIII-3-1(viii)		the applicant's name changed from previous ABB OY to new ABB OY (two different companies although the name is the same) on 31 December 2004 (31.12.2004)
VIII-3-1(i x)	This declaration is made for the purposes of:	all designations

VIII-4-1 Declaration: Inventorship (only for the purposes of the designation of the United States of America)
Declaration of Inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to international application PCT/FI2005/000026 (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

stated next to my name. I hereby state that I have reviewed and understand the contents of the aboveidentified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications", by application number, country or Member of the World Trade Organization, day, month, and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

VIII-4-1- Prior applications:

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

VIII-4-1- Name (LAST, First) VIII-4-1-Residence:

(city and either US State, if applicable, or country)

VIII-4-1-Mailing address:

1-3.

Citizenship: VIII-4-1-1-4

VIII-4-1-

Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

VIII-4-1-

Date: (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the International application)

MATTLAR, Harri

Iskmo, Finland

Jungsundsvägen 809 FI-65760 Iskmo Finland

FI

11 3, 2005

	1 AOT 5 - 0	
2-1	· ·	KOLMONEN, Rainer
2-2	(city and either US State, if applicable, or country)	Laihia, Finland
VIII-4-1- 2-3	Mailing address:	Urputie 3 as 1 FI-66400 Laihia Finland
	Citizenship:	FI
2-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Rai a
VIII-4-1- 2-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	11.3.2005
VIII-4-1- 3-1	Name (LAST, First)	SALO, Juho
	Residence: (city and either US State, if applicable, or country)	Vaasa, Finland
VIII-4-1- 3-3	Mailing address:	Huuhkajankatu 19 A 2 FI-65320 Vaasa Finland
VIII-4-1- 3-4	Cilizenship:	FI A . A
	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	11,3,2005
VIII-4-1- 3-6	1 -	777 31 2003
	Name (LAST, First)	PIKKALA, Osmo
4-1 VIII-4-1- 4-2	Residence: (city and either US State, if applicable, or country)	Sundom, Finland
VIII-4-1- 4-3	Mailing address:	Kronvikintie 323 FI-65410 Sundom Finland
	- Citizenship:	LI
•	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filling of the international application. The signature must be that of the inventor, not that of the agent)	asmi gratesty
VIII-4-1 4-6	- Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the International application)	10.3.2005

	•	
VIII-4-1- 5-1	Name (LAST, First)	SUUTARINEN, Aki
	Residence: (city and either US State, if applicable, or country)	Vaasa, Finland
VIII-4-1- 5-3	Malling address:	Pihkatie 12 A 5 FI-65320 Vaasa Finland
VIII-4-1- 5-4	Citizenship:	FI
VIII-4-1- 5-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filling of the international application. The signature must be that of the inventor, not that of the agent)	As Suntainen
VIII-4-1- 5-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	15.3.2005
	Name (LAST, First)	ALANEN, Jarkko
6-1 VIII-4-1- 6-2	Residence: (city and either US State, if applicable,	Ylihärmä, Finland
· VIII-4-1- 6-3	or country) Mailing address:	Koukkuluomantie 301 FI-62375 Ylihärmä Finland
VIII-4-1- 6-4	Citizenship:	FI
	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Jearlie Ale
VIII-4-1- 6-6	Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	10.3.2005
VIII-4-1- 7-1	Name (LAST, First)	TUONONEN, Martti
	Residence: (city and either US State, if applicable, or country)	Vaasa, Finland
VIII-4-1 7-3	- Mailing address:	Fasaaninkatu 2 A 2 FI-65370 Vaasa Finland
VIII-4-1 7-4	- Citizenship:	FI
VIII-4-1 7-5	(If not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Matte Sua
VIII-4-1 7-6	 Date (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application) 	15.3.2005